

Date: Sat, 13 Mar 93 04:30:15 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #316  
To: Info-Hams

Info-Hams Digest                      Sat, 13 Mar 93                      Volume 93 : Issue    316

Today's Topics:

    AURORA WARNING: Middle Latitude Auroral Activity Warning  
    WARNING: Potential Major Geomagnetic Storm Warning

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 13 Mar 93 08:04:21 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: AURORA WARNING: Middle Latitude Auroral Activity Warning  
To: info-hams@ucsd.edu

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MIDDLE LATITUDE AURORAL ACTIVITY WARNING

ISSUED: 06:00 UT, 13 MARCH

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VALID UNTIL: 19:00 UTC ON 16 MARCH

    HIGH RISK PERIOD: 14 Mar - 15 Mar (UT days)  
MODERATE RISK PERIOD: 14 Mar - 16 Mar

PREDICTED ACTIVITY INDICES FOR NEXT 3 DAYS: 50, 35, 18 (14 - 16 MAR)  
(INPUT INTO THE PREDICTIVE AURORA SOFTWARE \*)

POTENTIAL MAGNITUDE OF MIDDLE LATITUDE AURORAL ACTIVITY: MODERATE - HIGH

POTENTIAL LUNAR INTERFERENCE: MODERATE

OVERALL OPPORTUNITY FOR OBSERVATIONS FROM MIDDLE LATITUDES: FAIR TO GOOD

AURORAL ACTIVITY \_MAY\_ BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

SOUTHERN OREGON TO NORTHERN UTAH TO SOUTHERN WYOMING TO NEBRASKA AND  
POSSIBLY PARTS OF NORTHERN KANSAS TO IOWA TO CENTRAL ILLINOIS TO  
INDIANA TO OHIO TO PENNSYLVANIA TO CONNECTICUT.

AREAS NORTH OF A LINE APPROXIMATELY FROM NORTHERN FRANCE TO NORTHERN  
GERMANY TO NORTHERN POLAND TO NORTHERN RUSSIA MAY ALSO SPOT ACTIVITY.

AREAS OF SOUTHERN AUSTRALIA AND SOUTHERN NEW ZEALAND SHOULD ALSO BE  
ABLE TO SPOT PERIODS OF ACTIVITY.

\* Contact: Oler@Rho.Uleth.CA or COler@Solar.Stanford.Edu for more information  
regarding the Auroral Activity Prediction and Simulation Software.

SYNOPSIS...

A significant major solar flare that erupted at 18:15 UT on 12 March has produced an interplanetary disturbance that is presently in transit to the Earth. After the shock hits sometime near 10:00 UT on 14 March, levels of auroral activity are expected to increase to moderate or high levels. The waning phase of the moon combined with the anticipated magnitude of the disturbance should be sufficient to produce visible auroral activity over much of the upper and central middle latitude regions. Estimated boundaries are given above. Users of our auroral oval simulation software should use the input values given above to produce estimated contoured maps of auroral activity visibility for the next 72 hours. Under dark sky and good atmospheric conditions, there is an outside chance the lower latitude regions may also spot periods of activity.

The best times to look for auroral activity will be in the hours prior to moonrise (anytime prior to about 30 minutes after midnight).

This warning will remain active until 19:00 UT on 16 March when it will either be updated or allowed to expire.

\*\* End of Warning \*\*

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Date: 13 Mar 93 07:56:26 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: WARNING: Potential Major Geomagnetic Storm Warning  
To: info-hams@ucsd.edu

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POTENTIAL MAJOR GEOMAGNETIC STORM WARNING

ISSUED: 05:00 UT, 13 MARCH

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HIGH RISK PERIOD: 14 Mar (UT days)  
MODERATE RISK PERIOD: 14 Mar - 15 Mar

POTENTIAL LOW-MIDDLE LATITUDE STORM INTENSITY: MINOR - MAJOR  
POTENTIAL HIGH LATITUDE STORM INTENSITY: MAJOR

POTENTIAL DURATION OF GEOMAGNETIC STORM: 24 HOURS

POTENTIAL PEAK LOW-MIDDLE LATITUDE K-INDEX VALUES: 7  
POTENTIAL PEAK HIGH LATITUDE K-INDEX VALUES: 8

EXPECTED DOMINATING LOW-MIDDLE LATITUDE K-INDEX: 5  
EXPECTED DOMINATING HIGH LATITUDE K-INDEX: 6

POTENTIAL FOR LOW LATITUDE HF DEGRADATION: MODERATE  
POTENTIAL SEVERITY OF HF DEGRADATION: MINOR  
EXPECTED HF PROPAGATION CONDITIONS: GOOD - FAIR

POTENTIAL FOR MIDDLE LATITUDE HF DEGRADATION: HIGH  
POTENTIAL SEVERITY OF HF DEGRADATION: MINOR - MAJOR  
EXPECTED HF PROPAGATION CONDITIONS: FAIR - OCCASIONALLY VERY POOR

POTENTIAL FOR HIGH LATITUDE HF DEGRADATION: HIGH  
POTENTIAL SEVERITY OF HF DEGRADATION: MAJOR  
EXPECTED HF PROPAGATION CONDITIONS: VERY POOR TO USELESS

POTENTIAL RISK FOR GEOSYNCHRONOUS MAGNETOPOUSE CROSSINGS: 65 %

SUSPECTED SOURCE OF OBSERVED/EXPECTED ACTIVITY:  
Major M7.0/3B proton flare of 12 March.

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EST. POTENTIAL GEOMAGNETIC IMPACT  
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SEVERE STORM : 20 %  
MAJOR STORM : 35 %  
MINOR STORM : 35 %  
ACTIVE OR LESS : 10 %

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PROBABLE SI ASSOCIATION : 90%

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EST. POTENTIAL IONOSPHERIC IMPACT  
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LOW LATITUDES : MINOR  
MIDDLE LATITUDES : MINOR - MAJOR  
HIGH LATITUDES : MAJOR  
POLAR LATITUDES : MAJOR

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ESTIMATED GLOBAL IMPACT: MINOR - MAJOR

\*\* End of Warning \*\*

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End of Info-Hams Digest V93 #316

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